

## ***Determinants of Profitability of Islamic Banking Sector of Pakistan***

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### ***Abstract***

This study is investigating potential determinants which influence the profitability of Islamic Banks in Pakistan. The researcher has incorporated both internal as well as external factors to identify their impact on Islamic banks' profitability. Panel data of five years for the sample period of 2010 to 2014 for five Islamic banks is constructed for the study. Earnings per Share (EPS) and Return on Assets (ROA) are the dependent variable whereas Liquidity Ratio (LR), Deposit Ratio (DR), Capital Adequacy Ratio (CAR), Expense Management (EM), Bank Size (BS), Branch Network (BN) and macroeconomic factors i.e. Gross Domestic Product (GDP) and Inflation Rate (INF) are the independent variables; two regression models are developed for each dependent variable. Secondary sources such as financial statements and SBP reports are used for data collection. Least square method is used for testing the proposed hypothesis.

The results revealed that Bank Size (BS), Expense Management (EM) and Gross Domestic Product (GDP) are significant factors in determining the profitability of the Islamic Banks. EM and BS are statistically significant with EPS at 5% level of significance and have a positive relationship with the bank's profitability. GDP is statistically significant with ROA as well as EPS at 5% level of significance and negatively related. This research will help the policy makers, bank managers and practitioners to control the impact of these variables and make decisions accordingly and can be used as reference for making policies and future researches. Future, researchers can add more variables in the model, increase the sample size, and add primary data to explore new factors for Islamic banks' profitability.

**Keywords:** Profitability, EPS, ROA, Panel Data, Least Square Method, Islamic Banking, Pakistan.

## **1. INTRODUCTION**

### **1.1. Islamic Banking Industry Overview**

Islamic banking emerged tremendously in Pakistan as a result of economic and religious need. Various efforts, measures and laws were introduced by the regulators in the era of 1980s to eliminate interest from the economy. This was the first phase of finding the alternative of the interest based banking system, but due to various issues, this model was challenged in federal Shariah court and declared Non-Islamic. Islamic banking was re-launched in 2002 by the efforts of SBP and participation of Shariah board in making laws, regulations and policy framework based on the lessons learned from the past launch failure.<sup>1</sup> Islamic banking has grown massively in the last decade in almost every region of the world. According to SBP report<sup>2</sup> Islamic banking industry possessed 10% market share with an asset base of about 1 trillion<sup>3</sup>. Government of Pakistan is also supporting the Shariah compliant banking system in the country as IBs are recording a timely remarkable and efficient progress.

### **1.2. Problem Background**

The main source of profit in conventional banks is interest, but interest free Islamic banking is earning at a greater rate than conventional banking. Profits earned by the Islamic banking industry in 2014 are among highest which is about Rs.15 billion. Earning indicators like EPS, ROA and ROE for Islamic Banking has spotted a remarkable improvement. Islamic banking, despite its expansionary stage in Pakistan has grasped the interest of people as well as businesses in a very short time span and now growing rapidly that even conventional banks are also offering the Islamic products through their separate Islamic window. This research studied the profitability of Islamic banks and to find that which factor from the internal and external environment of Islamic banks in Pakistan has a direct impact on the bank's performance and growth. Although some important studies have already been conducted in this respect, but this research is proposed to update the literature as well as identify the trends regarding the profitability determinants and explore more about the factors in detail; and find out the difference in profitability with the economic hitches between the periods of 2010 to 2014.

### **1.3. Objectives of Research**

- The main objective of this research study is to identify the potential factors from bank's internal environment and from macroeconomic environment that have a significant impact on profitability as per the prevailing industry conditions.
- Secondly to fill the knowledge gap found in the past studies and update the literature on Islamic banking industry of Pakistan.

### **1.4. Significance of Research**

Islamic banking industry is recording a remarkable growth in Pakistan so, the various studies and researches are very important in this regard that helps to improve the bank's performance, operations and management decision making that will help Islamic banking industry to grow more and contribute to the economic development and survive in the competitive environment of conventional banks. This study will also help the policy makers, bank managers and practitioners to control the impact of the variables and make decisions accordingly. Further, this research can be used as reference for IBs for making policies and future researchers.

## **2. LITERATURE REVIEW**

In order to explore about the banking efficiency of conventional and Islamic banks of Malaysia conducted a study in which data from 2008 to 2011 is analyzed for 16 Islamic and 19 conventional banks; and uses stochastic frontier approach for data analysis. On the whole, the efficiency of Malaysian banks is almost similar, the result also suggests that the performance of conventional banks will be improved with the decrease in credit risk and operating cost and with the increase in bank size while in case of Islamic banks operational cost need to be controlled for improving the efficiency.<sup>4</sup>

A research study was conducted on 15 commercial banks of Pakistan, data collected for the period of 5 years from 2005-2009 for examining the effect of macroeconomic and bank's internal variable on the profitability by using the ordinary least square method and the results provides the indication that banks with more assets, loans, deposits and capital will earn more profit and micro and macroeconomic variables are significantly related with the profitability.<sup>5</sup>

Another study, which was conducted in 2014 on religious aspects of finance promises as evidence from Pakistan compares the commercial and Islamic banks performance operating in Pakistan. The poisson distribution method was applied to the 2012 data. ROE, ROA, EPS, total assets, market share and CAR are the variables in this research. The results suggest that the coefficient of market share, equity and ROE of

Islamic banks are significant and positive, thus they are more stable and perform efficiently as compared to conventional banks. The credit performance of Islamic banks is also better as the credit risk exposure is low in Islamic banking industry<sup>6</sup>

Eltabakh, Ngamkroeckjoti and Siad<sup>7</sup> studies the profitability factors before, after and during the global financial crises, their research presents a comparative study of Islamic and conventional banks listed in Qatar exchange. Data from 2005 to 2012 has been collected and correlation analyses have been performed. Results revealed that there is a significant relationship for Islamic Banks between profitability with size, debt to equity, debt to asset, inflation, and money supply, whereas conventional bank's profitability is not significantly related to abovementioned variable except inflation, debt to equity ratio, and interest rate.

Khan, Farooq and Fawad<sup>8</sup> compares the performance of conventional and Islamic banks in Pakistan. Sample selected for the study is a pair of conventional bank and a pair of Islamic banks. Regression is applied on various financial ratios such as profitability, solvency and liquidity ratios. Analyses are applied for the sample period of 2006-2009. Research findings suggest that Islamic banks performance of Islamic banks is much better as compared to conventional banks in terms of earning. They presented that more equity financing, less risk of going default and cost efficiency are the main factors are better because of as well.

Muda, Shaharuddin and Embaya<sup>9</sup> conducted a research that involves the profitability determinants by comparing foreign and domestic Islamic banks operating in Malaysia and used quarterly data from 2007 to 2010 for seventeen banks. The study variables were tested by using Generalized Least Square (GLS) technique. The determinants of profitability for foreign and domestic banks are found to be different. The study concludes that domestic bank's profitability is affected by GDP, bank size, expense ratio, loans ratio, technical efficiency whereas inflation, deposit ratio and capital reserve have a significant impact on both banks profitability. The global financial crisis has an adverse impact on the domestic banks operating in Malaysia so they need to take such initiatives that not only strengthen their ability to manage risk but can also ready to meet any kind of sudden financial shock.

In order to examine the specific profitability factors of the bank and its impact on the profitability, Akhtar, Ali and Sadaqat<sup>10</sup> used multivariate regression model on the financial data for the period of 2006 to 2009 of Islamic banks operating in Pakistan. ROA and ROE used as the dependent variable and as a proxy for measuring the bank's profitability while gearing ratio, Non Performance loans (NPL) ratio, bank size,

operational efficiency and capital adequacy were taken as independent variables by the researchers. The statistical evidence depicts that asset management, gearing ratio. Capital adequacy is positively related with ROA and ROE whereas, NPL and bank size are negatively related to the profitability of Islamic banks.

Awan<sup>11</sup> for comparing Islamic and conventional banking in Pakistan analyzes the data from 2006 to 2009 for six Islamic and six conventional banks. The Islamic banks vertical growth was analyzed by doing ratio analysis for measuring the performance indicators. Comparative analysis technique, direct interviews and ratio analysis were applied on the financial indicators, i.e. liquidity, asset quality, CAR and earnings. These indicators were measured by various proxies and the results suggested that Islamic bank's performance is better in comparison with those of conventional banks in terms of service quality, assets, deposits, efficiency, loan recovery, and investments and financing.

Research study on gauging profitability and liquidity of Islamic banks with the aim to assess, analyses and compares the financial performance of five Malaysian Islamic banks with five Islamic banks operating in Pakistan for the period of 2006 to 2011 by using ratio analysis technique with descriptive and inferential statistics for the data analysis. Empirical results reveal that Malaysian banks are more liquid and profitable while no major difference is identified in current ratio, ROA, ROE, cash and portfolio investment to deposit and loan to deposit ratio. This research also portrayed that both country's banks faced losses initially, but the efficient policies progressed the banking operations. Malaysian banks are efficient in maintaining the investment portfolios<sup>12</sup>

For filling the demanding gap of literature and analyzing the main determinants of profitability and efficiency of world Islamic banks for the sample years from 1992 to 2009, total 78 banks were selected from 25 countries and data employment analysis and ordinary least square techniques was applied by the researchers on various internal and external factors. The research results shows that that banks with high operating expense ratio are more profitable and concludes that operating expense ratio, bank size, equity, NPL and GDP are proved to be significant and positively related with profitability of bank, while loans ratio are negatively related with bank's efficiency and profitability<sup>13</sup>

AL-Taleb and AL-Khatib<sup>14</sup> used EPS as dependent variable for measuring the banking profitability of Islamic banks operating in Jordan during 2000 to 2013 and took financial and economic factors as independent variables including unemployment rate,

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GDP, Inflation, ROA, ROE, Book value, liquidity and debt ratio. Descriptive statistics, correlation matrix and ANOVA was the main statistical tools used in the research and the findings revealed that debt ratio has a positive and significant impact on ROE whereas liquidity and unemployment rate are negatively related to EPS, and book value per share, inflation and GDP are found insignificant in determining the profitability of Islamic banks.

### **3. RESEARCH METHODOLOGY**

#### **3.1. Nature of Research**

This is an explanatory research, which includes the secondary quantitative data. Variables for bank's profitability are taken as dependent variables and several factors as shown in conceptual framework are taken as independent variables in the model, which explains the cause and effect relationship between the variables. The research approach is deductive as the hypothesis will be generated which will be accepted or rejected after applying the various statistical test and data analysis.

#### **3.2. Research Model**

As this research study measures the profitability from two proxies so following two models are developed and subsequently tested in this study:

**Model 1:**  $ROA (Y1) = \alpha + X_1\beta_1 + X_2\beta_2 + X_3\beta_3 + X_4\beta_4 + \ln X_5\beta_5 + \ln X_6\beta_6 + X_7\beta_7 + X_8\beta_8 + \epsilon$

**Model 2:**  $EPS (Y2) = \alpha + X_1\beta_1 + X_2\beta_2 + X_3\beta_3 + X_4\beta_4 + \ln X_5\beta_5 + \ln X_6\beta_6 + X_7\beta_7 + X_8\beta_8 + \epsilon$

#### **3.3. Hypothesis**

On the basis of the previous researches and literature review various variables are identified to include in this study, following hypotheses are tested:

*H1: Liquidity is positively/negatively related to Profitability of Islamic Banks.*

*H2: Deposit ratio is positively/ negatively related to Profitability of Islamic Banks.*

*H3: Capital Adequacy Ratio is positively/negatively related to Profitability of Islamic Banks.*

*H4: Expense Management is positively/negatively related to Profitability of Islamic Banks.*

*H5: Bank Size is positively/ negatively related to Profitability of Islamic Banks.*

*H6: Branch network is positively/ negatively related to Profitability of Islamic Banks.*

*H7: GDP is positively/ negatively related to Profitability of Islamic Banks.*

*H8: Inflation rate is positively/ negatively related to Profitability of Islamic Banks.*

### 3.4. Sampling Technique and Sample Size

In this research study, the non probability sampling technique is used. The target population is the banking industry in Pakistan and sample is five Islamic banks i.e. Meezan Bank Ltd, Bank Islami Ltd, Dubai Islamic Bank Ltd, Burj Bank Ltd, Albarkah Bank and this study uses panel data for the five years period from 2010 to 2014 for testing the significance between the profitability and bank's internal and external variables.

### 3.5. Data Collection Method

This research is based on the quantitative data that is collected from secondary sources. Secondary data collected for this research are from the annual reports, financial statements of the banks, Pakistan Bureau of Statistics (PBS) and SBP published reports and the Islamic banking bulletin.

### 3.6. Data Analysis Method

For analyzing the collected data and testing the proposed hypothesis; Eviews research software is used in this study. Correlation matrix is developed for assessing the relationship among independent variables. Furthermore, Regression analysis with OLS technique is used to check the relationship and for test the level of significance between dependent and independent variables.

## 4. DATA ANALYSIS

### 4.1. Correlation Matrix

|    | LR            | DR            | CA<br>R       | E<br>M        | BS           | BN           | GD<br>P | I<br>NF |
|----|---------------|---------------|---------------|---------------|--------------|--------------|---------|---------|
| R  | 1.<br>000000  |               |               |               |              |              |         |         |
| R  | -<br>0.288373 | 1.<br>000000  |               |               |              |              |         |         |
| AR | 0.<br>041306  | -<br>0.828714 | 1.0<br>00000  |               |              |              |         |         |
| M  | 0.<br>438593  | -<br>0.717505 | 0.5<br>97501  | 1.<br>000000  |              |              |         |         |
| S  | -<br>0.319289 | 0.<br>727134  | -<br>0.705223 | -<br>0.715809 | 1.0<br>00000 |              |         |         |
| N  | -<br>0.363169 | 0.<br>725865  | -<br>0.620239 | -<br>0.612106 | 0.9<br>37179 | 1.<br>000000 |         |         |

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|           |          |          |          |          |          |          |          |         |
|-----------|----------|----------|----------|----------|----------|----------|----------|---------|
|           | 0.       | 0.       | -        | -        | 0.3      | 0.       | 1.       |         |
| <b>DP</b> | 381644   | 294529   | 0.268565 | 0.072314 | 26366    | 386789   | 000000   |         |
|           | -        | -        | 0.3      | 0.       | -        | -        | -        | 1       |
| <b>NF</b> | 0.263037 | 0.289854 | 35244    | 146188   | 0.365092 | 0.422505 | 0.698923 | .000000 |

The above table of correlation matrix is created to check that if there is any independent variable which is affected by the other independent variables used in the research study. The correlation between BS and BN is 0.937179 which is high and shows that there is multicollinearity between these two variables. Strong relationship found between the DR, BS and BN as the correlation is greater than 0.70 this indicates that larger the BN and BS, DR will also be higher for Islamic banks and is weakly related with the GDP. All variables are negatively related with LR except CAR, EM and GDP and depicting the moderate relationship between the variables. EM is weakly related with INF while BS and BN are moderately related with the GDP growth rate of Pakistan. Thus, we can conclude that there is multicollinearity issue DR, BS and BN. To address this issue, we have taken natural log of bank size (BS) and branch network (BN).

#### 4.2. Research Results and Discussion

**Table 1: Model 1**

| Dependent Variable: EPS<br>Method: Panel Least Squares<br>Sample: 2010 2014<br>Cross-sections included: 5<br>Total panel (balanced) observations: 25 |             |            |             |        |
|--|-------------|------------|-------------|--------|
| Variable   | Coefficient | Std. Error | t-Statistic | Prob.  |
|  |             |            |             |        |
| C  | 40.02657    | 11.28952   | 3.545464    | 0.0027 |
|  |             |            | 0.084       |        |
| LR   | 0.181339    | 2.144989   | 541         | 0.9337 |
|  |             |            |             |        |
| DR   | 2.473139    | 6.053627   | 0.408538    | 0.6883 |
|  |             |            | 1.641       |        |
| CAR  | 5.567278    | 3.392108   | 244         | 0.1203 |



|                    |                 |                       |                 |               |
|--------------------|-----------------|-----------------------|-----------------|---------------|
|                    |                 |                       | <b>2.165</b>    |               |
| <b>EM</b>          | <b>38.14789</b> | <b>17.61933</b>       | <b>116</b>      | <b>0.0458</b> |
|                    |                 |                       | <b>3.877</b>    |               |
| <b>BS</b>          | <b>2.221507</b> | <b>0.572980</b>       | <b>113</b>      | <b>0.0013</b> |
|                    |                 |                       | 1.783           |               |
| <b>BN</b>          | 1.182020        | 0.662768              | 458             | 0.0935        |
|                    |                 |                       | -               |               |
| <b>GDP</b>         | <b>158.3523</b> | <b>75.64757</b>       | <b>2.095290</b> | <b>0.0500</b> |
|                    |                 |                       | 0.988           |               |
| <b>INF</b>         | 5.136047        | 5.198307              | 023             | 0.3378        |
| <hr/>              |                 |                       |                 |               |
| R-squared          | 0.936427        | Mean dependent var    | 0.765080        |               |
| Adjusted R-squared | <b>0.904640</b> | S.D. dependent var    | 1.713831        |               |
| S.E. of regression | 0.529237        | Akaike info criterion | 1.838953        |               |
| Sum squared resid  | 4.481472        | Schwarz criterion     | 2.277748        |               |
|                    |                 |                       |                 |               |
| Log likelihood     | 13.98691        | Hannan-Quinn criter.  | 1.960555        |               |
| F-statistic        | <b>29.45984</b> | Durbin-Watson stat    | 3.080834        |               |
| Prob(F-statistic)  | 0.000000        |                       |                 |               |

$$\text{EPS} = -40.02657 + 0.181339 \cdot \text{LR} - 2.473139 \cdot \text{DR} + 5.567278 \cdot \text{CAR} + 38.14789 \cdot \text{EM} + 2.221507 \cdot \text{BS} + 1.182020 \cdot \text{BN} - 158.3523 \cdot \text{GDP} + 5.136047 \cdot \text{INF}$$

In model 1, Earnings per Share (EPS) is selected as an dependent variables and develop this model to check the impact of Liquidity Ratio (LR), Deposit Ratio (DR), Capital Adequacy Ratio (CAR), Expense Management (EM), Bank Size (BS), Branch Network (BN) and macro-economic factors i.e. Gross Domestic Product (GDP), and Inflation Rate (INF) on the profitability of Islamic banks operating in Pakistan. The F test of the model 1 is 29.45984, (probability: 0.000000), which show overall significance of the model. This model is explaining around 90% variations in EPS (as depicted by Adjusted R<sup>2</sup>), showing good predicting ability of model.

Bank Size (BS), Expense Management (EM) and Gross Domestic Product (GDP) are found to be significant factors in determining the profitability of the Islamic Banks with the t values of 2.165116, 3.877113 and -2.093290 respectively. Their coefficients

are 38.14789, 2.221507 and -158.3523 respectively, which shows the impact of these variables on profitability of Islamic banks in term of Earnings per Share (EPS). The magnitudes of the coefficients are of the higher side, which is problematic in the interpretation of model. Signs of the coefficients show that bank size and expense management is positive related to EPS whereas GDP is negatively related. EM is measured by the proxy of operating expenses to Total assets while BS is measured by taking log of total assets. Findings of the study matches with the past study conducted on the profitability and efficiency of Islamic banks by Ahmad and Noor<sup>15</sup>. Eltabakh, Ngamkroeckjoti and Siad<sup>16</sup> has discussed in their study that large banking institution are able to achieve the economies of scale easily because they are cost efficient which enables the bank to increase the market share. It means that expense management is significant in determining the profitability of banks, which is consistent to our finds.

Liquidity Ratio (LR), Deposit Ratio (DR), Capital Adequacy Ratio (CAR), Branch Network (BN) and Inflation Rate (INF) are found insignificant in this model. These variables have t values 0.084541, -0.408538, 1.641244, 1.783458, and 0.988023 respectively in the model. According to Alkassim,<sup>17</sup> DR negatively impacts the bank's profitability; our result is inconsistent with his findings as DR is not significant in our model. In Basel Accord, capital adequacy standard was set, and SBP, following the accord, requires all banks operating in Pakistan are liable to meet the minimum capital requirement. Mukolu and Ogodor<sup>18</sup> found that CAR does not impact significantly on EPS; our results are consistent with their research findings. The findings of model 1 are partially supporting the conclusions of ALTaleb and ALKhatib<sup>19</sup> and Mukolu and Ogodor<sup>20</sup>

**Table 2: Model 2**

| Dependent Variable: ROA<br>Method: Panel Least Squares<br>Date: 10/25/15 Time: 17:03<br>Sample: 2010 2014<br>Cross-sections included: 5<br>Total panel (balanced) observations: 25 |                 |               |                 |           |
|--|-----------------|---------------|-----------------|-----------|
| Variable   | Coef<br>ficient | Std.<br>Error | t-<br>Statistic | Pro<br>b. |

|                    |     |          |                       |          |      |
|--------------------|-----|----------|-----------------------|----------|------|
|                    |     | -        | 0.15853               | -        | 0.15 |
| C                  |     | 0.237645 | 5                     | 1.499013 | 33   |
|                    |     | 0.059    | 0.03012               | 1.9840   | 0.06 |
| LR                 |     | 764      | 1                     | 99       | 47   |
|                    |     | 0.168    | 0.08500               | 1.9847   | 0.06 |
| DR                 |     | 722      | 9                     | 55       | 46   |
|                    |     | 0.059    | 0.04763               | 1.2582   | 0.22 |
| CAR                |     | 935      | 4                     | 31       | 64   |
|                    |     | 0.072    | 0.24742               | 0.2940   | 0.77 |
| EM                 |     | 759      | 2                     | 70       | 25   |
|                    |     | 0.006    | 0.00804               | 0.7748   | 0.44 |
| BS                 |     | 235      | 6                     | 55       | 97   |
|                    |     | 0.009    | 0.00930               | 0.9792   | 0.34 |
| BN                 |     | 114      | 7                     | 28       | 20   |
|                    |     | -        | 1.06229               | -        | 0.03 |
| GDP                |     | 2.524291 | 2                     | 2.376268 | 03   |
|                    |     | -        | 0.07299               | -        | 0.94 |
| INF                |     | 0.004662 | 8                     | 0.063864 | 99   |
|                    |     |          |                       |          |      |
|                    |     | 0.727    |                       |          | 0.00 |
| R-squared          | 804 |          | Mean dependent var    | 0112     |      |
|                    |     | 0.591    |                       |          | 0.01 |
| Adjusted R-squared | 707 |          | S.D. dependent var    | 1631     |      |
|                    |     | 0.007    |                       |          | 6.69 |
| S.E. of regression | 432 |          | Akaike info criterion | 2360     |      |
|                    |     | 0.000    |                       |          | 6.25 |
| Sum squared resid  | 884 |          | Schwarz criterion     | 3565     |      |
|                    |     | 92.65    |                       |          |      |
| Log likelihood     | 450 |          | Hannan-Quinn criter.  | 6.570657 |      |
|                    |     | 5.347    |                       |          | 2.94 |
| F-statistic        | 659 |          | Durbin-Watson stat    | 3377     |      |
|                    |     | 0.002    |                       |          |      |
| Prob(F-statistic)  | 174 |          |                       |          |      |
|                    |     |          |                       |          |      |

$$\text{ROA} = -0.237645 + 0.059764 \cdot \text{LR} + 0.168722 \cdot \text{DR} + 0.059935 \cdot \text{CAR} + 0.072759 \cdot \text{EM} + 0.006235 \cdot \text{BS} + 0.009114 \cdot \text{BN} - 2.524291 \cdot \text{GDP} - 0.004662 \cdot \text{INF}$$

Model 2 is also significant on overall basis as was the model 1. The value of F test of the model 2 is 5.347659, (probability: 0.00217), but the explanatory power is lower than the model 1, as the value of Adjusted R<sup>2</sup> of model 2 is 59%. Adjusted R<sup>2</sup> is considered because of multivariate regression model. As far as independent variables are concerned, only GDP is found to be significant with t value of -2.376268. The coefficient of GDP is -2.524291, which shows negative relationship between ROA and GDP. It means that 1 percent increase in GDP will cause 2.52 percent decrease in ROA. All other variables are found to insignificant.

The results in model 2 are consistent with the literature that there is no significant relationship between ROA and liquidity because the profitability of Islamic banks is expected to be high if the fewer funds are tied up for the liquidity. Result is supported by the past researches Teng<sup>21</sup> and Idris<sup>22</sup>. DR proves to be positively related with Islamic bank's ROA but insignificant; the findings are in line with Alkassim<sup>23</sup>, and Arif, Zubair and Iqbal<sup>24</sup>. Large amount of deposits provides handsome returns to the Islamic banking industry. Deposits are one of the main funding sources of banks and have a direct relationship with the profitability (Muda, et al.,).<sup>25</sup> But our model 2 is not supporting their results.

BS and BN are also found to be insignificantly related with the ROA of Islamic banks in model 2. These findings are supported by the Akhtar, Ali and Sadaqat<sup>26</sup>. The rationale provided in their study is that it is not important that bank with large amount of assets and wider branch network will be more profitable as compared to other banks operating in the industry aggressively with others but it depends on the ability to take risk and these two factors are used as a proxy for measuring competition as well in the past studies. In the same study, CAR is also found insignificant in explaining ROA of banks.

Almumani<sup>27</sup> has presented insignificant relationship between EM and ROA. But According to Idris et al.,<sup>28</sup> expense management is significantly related to ROA, as banks can generate more income by spending more money for operating expense in terms of high payroll for boosting up the human capital, improving the customer service of branches and efficiently meet the daily requirements by taking care of administrative issues, as these all will ultimately result in bank's operational efficiency. The findings of model 2 shows that there is an insignificant relationship between inflation and profitability. This result is supported by the Abbas<sup>29</sup>, and Ali et al.,<sup>30</sup>. Although it is

argued that high inflation rate will increase the cost of doing business and decrease the profitability, but in our model it found insignificant.

The only variable which is found statistically significant in model 2 is GDP but a negative relationship is depicted in the model, which is consistent with the results of Sufian,<sup>31</sup> Khrawish,<sup>32</sup> and Staikouras and Wood.<sup>33</sup> The argument is justified on the ground that high growth rate can affect the return of banks because of customer preference to tied up their funds in savings or fixed account, might be unaware about the economic changes or tied the same funds somewhere else. Policy makers must concentrate on this relation and take a serious note of effect of economic environment of a country on Islamic bank's profitability and design the strategies for banking operations accordingly. Comparing both models, we can conclude that the model 1, in which EPS is taken as dependent variable, presents better explanation of the profitability of Islamic Banking in Pakistan.

## **5. Conclusion**

Islamic banking industry of Pakistan is in its growth stage and emerged back in 2002 and considering the growth and increasing awareness of Islamic banking among the masses in Pakistan, this research is designed to investigate the various factors from bank's internal environment and macroeconomic environment of Pakistan to test their impact on the profitability of Islamic banking institution in Pakistan. Two separate models for EPS and ROA are developed for hypothesis testing. Both models are significant at 5% significance level but model 1 with EPS as dependent variable has proved to have more explanatory power then model 2. The results revealed that Bank Size (BS), Expense Management (EM) and Gross Domestic Product (GDP) are significant factors in determining the profitability of the Islamic Banks. GDP is also significant in model 2, but it is affecting EPS and ROA of Islamic banks adversely.

Research results recommend that Islamic bank should focus on enhancing bank size. To increase bank size, Islamic banks must start an awareness and promotional campaign for attracting new customer base and must focus on expanding their business in rural areas. Another area where Islamic banks' management can focus on is expense management. They should rationalize their expenses for achieving the operational efficiency. They can spend on payroll to retain and attract the efficient and talented human capital. Training and development budgets should be revisited to inculcate efficiency. Finally, Islamic bank should devise out strategies to handle the adverse effects of GDP growth to immune the Islamic banking from economic factors. This

research will help the policy makers, bank managers and practitioners to control the impact of these variables and make decisions accordingly and can be used as reference for making policies and future researches. Future, researchers can add more variables in the model, increase the sample size, and add primary data to explore new factors for Islamic banks' profitability.

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